OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA GEN. REG. NO. 27
5010-102

~~SECRET~~

UNITED STATES GOVERNMENT

Memorandum

TO : The Files: Contract 4331, Task Order 2

EP 66-107
DATE: 11 May 1966

FROM : Mr. [redacted] 25X1A9a

SUBJECT: Inspection Report No. 1 - DF-4 with [redacted] 25X1A5a1

1. Project Description:

25X1C1a1 [redacted]

2. Contractual Information:

a. Initial Cost: $59,553.34
b. Request for Procurement Action: 16 November 1965
c. Initiation Date: 10 January 1966
d. Completion Date: November 1966
e. Deliverable Items: Two prototype DF-4's; one set engineering drawings; final report

3. Date of Meeting: 15 April 1966

4. Place of Meeting: Fort Wayne, Indiana

5. Persons Attending:

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5. Persons Attending:

Agency		Non-Agency		
25X1A9a	Mr. [redacted]	Mr.	[redacted]	25X1A5a1
		Mr.		

6. Contractor's Performance:

a. On schedule and expected to remain so: Yes
b. Within obligated funds and expected to remain so: Yes
c. Satisfactory technical progress: Yes

7. Project Status:

The RF amplifier is functioning on all bands. The dynamic range of the RF amplifier was found to be nominally 70 db across the frequency range (0.5 to 20 Mc/s). Attempts to apply AGC to the RF amplifier resulted in extending the useable range to 100 db maximum without distortion. Shunting techniques resulted in a decrease in selectivity due to increased loading of the input coil. A series AGC system has been devised for the RF amplifier which extends the useable range to greater than 120 db and provides no selectivity decrease.

The IF, oscillator and logic circuitry have been temperature tested and necessary modifications were made. The IF amplifier was modified to operate with a supply voltage of 12 volts. The IF amplifier has a maximum gain of 90 db. No non-linearities nor temperature problems have been observed while testing the oscillator stage. The logic circuitry malfunctioned during temperature tests at 60°C. The logic has since been modified and the temperature range extended in excess of 80°C.

The gear ratios for the gear and dial assemblies have been used to conceive several possible configurations for the gear and dial assembly. The configurations are being evaluated with regard to reliability, cost and packaging considerations. Case design has begun and approximate sizes of circuit boards and compartments are being determined. 25X1A5a1 [redacted] expects to have a crude working brass-board model available within approximately four weeks.

The tuning capacitor was received from. . . .

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The tuning capacitor was received from Radio Condensor. The capacitor is a three section straight-line frequency variable and is enclosed in a case 2" x 2 1/4" x 5". In addition, the 12 volt nickel-cadmium battery 12 V0500 was received from Gulton several days ago. Work on a battery charger (70-240 VAC input) will start shortly.

[redacted] 25X1A9a

Distribution:
R&D Subject File
OL/PD/PCB/CAS
R&D Lab
OC-OS
ESB
Monthly (3)
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25X1A9a OC-E/R&D-EP/[redacted]/bjp (11 May 1966)